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Jens Fiedler

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EXAMINER

MAWARI, REDHWAN K

ART UNIT

PAPER NUMBER

3663

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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***Response to Amendment***

This Office Action is responsive to Applicant's amendment and request for reconsideration of application 10/596,368 filed on April 06, 2010.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. More specifically, the phrase "without any linear displacement sensors" is not disclosed nor suggested in the specification. Applicant discloses in the specification measurement of the vehicle movement can be done without height sensors, however does not explicitly disclose performing calculation without linear displacement sensors.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Townend (5,475,593) in view of Algrain (5,124,938).

Consider claim 1, Townend discloses an arrangement for determining a relative movement of a chassis and a vehicle body of a wheeled vehicle (see at least abstract), said vehicle body being movably connected to the chassis, comprising a measuring entity which is arranged in the wheeled vehicle, wherein the measuring entity is configured to measure three respectively perpendicular linear accelerations of the wheeled vehicle and at least two rotational speeds (see at least FIG. 2), each relating to a rotational movement or a component of a rotational movement about a coordinate axis of the wheeled vehicle, wherein the at least two coordinate axes run perpendicularly to each other (see at least FIG. 2 and FIG. 3A,-3C and at least col. 9, lines 25-39),

and an analysis entity which is combined with the measuring entity and is operable to determine a momentary movement position of the relative movement using the three linear accelerations and the at least two rotational speeds, and

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without using input from any height level or linear displacement sensors (see at least FIG. 2 and FIG. 3A,-3C and at least col. 9, lines 25-39);

wherein the analysis entity comprises a calculating unit which is operable to calculate a plurality of momentary movement positions using the at least two rotational speeds and the three linear accelerations, and wherein each of the movement positions is a measure for a distance between the vehicle body and at least one wheel of the chassis ((see at least FIG. 2 and FIG. 3A,-3C and at least col. 9, lines 25-39; however Townsend discloses rotational signals derived from the accelerometers sensors (see at least col. 9, lines 25-39); however Townsend does not explicitly disclose two rotational sensors. Examiner introduces a secondary reference to teach the missing limitation;

Algrain teaches wherein the analysis entity comprises a calculating unit which is operable to calculate a plurality of momentary movement positions using the at least two rotational speeds and the three linear accelerations (see at least abstract);

Accordingly, it would have been obvious to an ordinary skilled person in the art at the time of the invention to incorporate the invention of Algrain into the invention of Townsend for the purpose of improving the stability of the vehicle while the vehicle is subject to rotational motions.

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Claims 2-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Townend (5,475,593) in view of Algrain (5,124,938) and further in view of Schiffmann (6,292,759).

Consider claim 2, Townend in view of Algrain do not explicitly wherein the measuring entity has acceleration sensors for measuring the linear accelerations and rotational speed sensors for measuring the rotational speeds, and wherein the acceleration sensors and the rotational speed sensors are parts of a preprepared hardware unit which is configured for installation in the wheeled vehicle;

Schiffmann teaches wherein the measuring entity has acceleration sensors for measuring the linear accelerations and rotational speed sensors for measuring the rotational speeds, and wherein the acceleration sensors and the rotational speed sensors are parts of a preprepared hardware unit which is configured for installation in the wheeled vehicle (see at least FIG. 3A);

Accordingly, it would have been obvious to an ordinary skilled person in the art at the time of the invention to incorporate the invention of Schiffmann into the invention of Townend in view of Algrain for the purpose of improving the stability of the vehicle while the vehicle is subject to rotational motions.

Consider claim 3, Schiffmann teaches wherein the measuring entity is configured such that the three linear accelerations are measurable variables which are linearly independent of each other (see at least FIG. 3A).

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Consider claim 4, Townsend in view of Algrain and Schiffmann disclose wherein the measuring entity is configured such that the at least two coordinate axes run perpendicularly to each other as a pair in each case (see at least Schiffmann FIG. 4A, and at least Algrain FIG. 3).

Consider claim 5, Townsend discloses wherein the analysis entity includes a calculating unit which is configured to calculate the momentary movement position with reference to a spring suspension, in particular a spring suspension which is moderated, between at least one of the wheels of the wheeled vehicle and a vehicle body (see at least abstract).

Consider claim 6, claim 6 is rejected using the same art and rationale used to reject claim 1.

Consider claim 7, claim 7 is rejected using the same art and rationale used to reject claim 2.

Consider claim 8, claim 8 is rejected using the same art and rationale used to reject claim 3.

Consider claim 9, claim 9 is rejected using the same art and rationale used to reject claim 4.

Consider claim 10, claim 10 is rejected using the same art and rationale used to reject claim 5.

Consider claim 11, claim 11 is rejected using the same art and rationale used to reject claim 1.

Consider claims 12 and 13, claims 12 and 13 are rejected using the same art and rationale used to reject claim 2.

Consider claim 14, claim 14 is rejected using the same art and rationale used to reject claim 3.

Consider claim 15, claim 15 is rejected using the same art and rationale used to reject claim 4.

Consider claim 16, claim 16 is rejected using the same art and rationale used to reject claim 5.

### ***Response to Arguments***

Applicant's arguments have been fully considered but are not persuasive. In particular the applicant argues:

The Examiner uses Townend at the main reference, and in particular alleges that Townend teaches "an analysis entity which is combined with the measuring entity and is operable to determine a momentary movement position of the relative movement using the three linear accelerations and the at least two rotational speeds, and without using input from wheel displacement sensors." (Office Action, page 3 (emphasis added)). However, Townend does in fact use measurements of actuator displacement (X1, X2, X3, X4) at Applicants believe these sensors/actuators are examples of "wheel displacement sensors" that are restricted from Applicants' claimed invention. However, the Examiner apparently believes that the recited "wheel displacement sensors" do not



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include such sensors/actuators. Thus, in order to advance prosecution, Applicant has amended the independent claims to recite "without using input from any height-level or linear displacement sensors." Townend's displacement-measuring sensors/actuators discussed above are clearly "linear displacement sensors." Thus, Townend's analysis is clearly not performed "without using input from any height-level or linear displacement sensors," and in fact Townend teaches away from this key feature of Applicants' claims. Accordingly, the Examiner cannot provide a prima facie case of obviousness based on Townend, even if somehow combined with the other cited references.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Algrain teaches in at least abstract, wherein Algrain uses three perpendicular linear accelerations of the wheeled vehicle and at least two rotational movement to determine the movement position of the relative movement (wherein the apparatus uses linear or angular accelerometers to derive the roll, pitch and yaw components and bases on the calculations of angular velocity or acceleration of the vehicle and current rate and angle of rotation of the device, the apparatus generates setpoint and movement commands). Applicant is reminded that claims are given their broadest reasonable interpretation and therefore, examiner believes cited references still read on the argued limitation.

Applicant does not explicitly point out how his invention is distinguished from the cited

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prior art. Applicant must point out how his invention is distinguished from the cited prior art in a more detailed manner.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Redhwan Mawari whose telephone number is 571 270 1535. The examiner can normally be reached on 7:30 AM - 5PM Mon-Fri Eastern Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached at 571-272 6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

06/29/2010

/R. M./

Examiner, Art Unit 3663

/Tuan C To/  
Primary Examiner  
July 3, 2010